

### REMARKS

By way of this amendment claims 1, 3 and 10 have been amended. Support for the amendments to independent claims 1 and 10, the only independent claims pending in the application, is found in the specification at page 4, lines 12-16 and as such, it is submitted that no new matter has been added to the application by way of these amendments.

Support for a neurological injury as having a secondary injury associated with neurotrauma is found in the instant specification at page 9, line 29 – page 30, line 2. Additional amendments have been made to claims 1 and 3 to provide proper antecedent basis for “second position” and “database”, respectively. With entry of these amendments, objections to pending claims 1 and 3 are believed to have been overcome.

Currently, claims 1, 3-7, 10 and 13 stand rejected under 35 U.S.C. §102(b) as anticipated by Gozani et al. (US 2002/0183647 A1). Claims 2 and 11 stand rejected under 35 U.S.C. §103(a) over Gozani et al. and further in view of Cameron, Sr. et al. (US 5,364,793). Claim 8 stands rejected under 35 U.S.C. §103(a) over Gozani et al. and Cameron, Sr. et al. and further in view of Hartlaub et al. (US 2001/0037083 A1). Claim 12 also stands rejected under 35 U.S.C. §103(a) over Gozani et al. and further in view of Hartlaub et al. No rejection has been provided with respect to pending claim 9. Applicant has assumed that claim 9 is meant to be rejected along with claim 8 and will be addressed accordingly. If Applicant's assumption with regard to claim 9 is incorrect, it is respectfully requested that the status of claim 9 be articulated in a subsequent Office communication.

**Remarks Directed to Rejection of Claims 1, 3-7, 10 and 13  
under 35 U.S.C. §102(b) as Anticipated by Gozani et al.**

Anticipation has always been held to require absolute identity between teachings found within a single reference and the claimed subject matter.

Pending independent claims 1 and 10 have been amended to recite the detection of a neurological injury as “having a secondary injury associated with neurotrauma” and further entail the emitter being placed distal on the subject relative to the detector, and the detector being in “electrical communication with a subject central nervous system” and detecting an electrical signal transmitted by a nerve as “neural conductivity.”

In contrast to pending independent claims 1 and 10, Gozani et al. is silent as to detection of neurological injury “as having a secondary injury associated with neurotrauma in a subject.” Rather, Gozani et al. only teaches measurements with respect to effectively chronic conditions (see paragraphs [0010] and [0026]). Additionally, Gozani et al. lacks a teaching as to how one might adapt an apparatus or computational programs associated therewith to detect injuries having the prospect of subsequent neurotrauma that occurs as part of a cascade subsequent to the injury. Additionally, Gozani et al. is submitted to teach the importance of “mechanical and electronic localization to perform accurate and reliable nerve conduction studies” (see [0027]). This localization in nerve detection while critical for the indications contemplated in Gozani et al. is submitted to be wholly inoperative in classifying neurological injury associated with neurotrauma as the localized conduction data provided by Gozani et al. is insufficient to classify central nervous system injury that would require biochemical analysis or drug interventions to ameliorate secondary injury as required by the pending claims. Gozani et al. also recites the criticality of the connector detailed with respect to reference numeral 20 that automatically

positions a detector relative to a stimulator (see paragraphs [0029], [0031] and [0038]). Still further, Gozani et al. lacks a teaching as to electrical signal transmission via a nerve associated with the central nervous system and instead in instances where neural conductivity is involved uses a localized peripheral nerve relative to the stimulator.

Applicant submits that the subject matter embodied in dependent claims 5-7 is submitted to constitute patentable subject matter separate from dependency from base claims 1 and 10, now believed to be in allowable form. Applicant reserves the right to make of record additional arguments with respect to these claims in due course of prosecution.

In light of the above amendments and remarks, reconsideration and withdrawal of the rejection as to pending claims 1, 3-7, 10 and 13 under 35 U.S.C. §102(b) over Gozani et al. is respectfully requested.

**Remarks Directed to Rejection of Claims 2 and 11 under  
35 U.S.C. §103(a) over Gozani et al. and Further in View of Cameron, Sr. et al.**

Applicant submits that claims 2 and 11, which depend from base independent claims 1 and 10, respectively, are allowable based on dependency from these base claims now believed to be in allowable form. Additionally, Applicant hereby incorporates by reference the above remarks with respect to the limitations of Gozani et al. Gozani et al. is noted to lack a disclosure as to a biochemical analyzer sampling biological fluid from a subject for the presence of species indicative of neurological injury. Cameron, Sr. et al. is cited to bolster this limitation of Gozani et al. with particular reference to the abstract. (Paper No. 20071022, section 6, pages 3-4).

Applicant submits that the combination of Gozani et al. and Cameron, Sr. et al. fails to provide a teaching relevant to a chemical species or concentration indicative of neurotrauma but at most contemplates a marker relevant to chronic peripheral nerve damage and that these

teachings are wholly inoperative in precluding secondary injury associated with neurotrauma as the Apo-E marker of peripheral nerve damage has no bearing on indications of neurotrauma such as traumatic brain injury.

In light of the above amendments and remarks, reconsideration and withdrawal of the rejection as to claims 2 and 11 under 35 U.S.C. §103(a) over Gozani et al. and further in view of Cameron, Sr. et al. is requested.

**Remarks Directed to Rejection of Claim 8 (and Assumed  
Claim 9) under 35 U.S.C. §103(a) over Gozani et al.  
and Cameron, Sr. et al. and Further in View of Hartlaub et al.**

Applicant submits that claims 8 and 9 are allowable on the basis of dependency from base claim 1, now believed to be in allowable form. Additionally, incorporates the above remarks with respect to Gozani et al. and Cameron, Sr. et al. and the limitations of the teachings so provided.

In addition to the limitations detailed above with respect to Gozani et al. and Cameron, Sr. et al., Hartlaub et al. provides for controlled drug therapy through use of an implantable pump. Both the notion of an implantable drug infusion pump and patient self-administration per Hartlaub et al. are submitted to be nonequivalent to the claimed system on the basis that a first responder to a subject potentially suffering the effects of neurotrauma lacks the time or conditions to implant a drug infusion pump and secondly a subject is invariably in no condition to self-administer medications. Rather, pharmaceutical treatments must be provided as rapidly as possible to avoid the secondary injury which often leads to more debilitating damage and longer recovery times than the initial neurotrauma. As such, speed is of the essence per pending claims 8 and 9 to ameliorate these secondary injuries and concerns about dosing control detailed in Hartlaub et al. are inapplicable to the claimed invention.

In light of the above remarks, reconsideration and withdrawal of the rejection as to claim 8 (and assumed claim 9) under 35 U.S.C. §103(a) over Gozani et al. and Cameron, Sr. et al. and further in view of Hartlaub et al. is requested.

**Remarks Directed to Rejection of Claim 12 under  
35 U.S.C. §103(a) over Gozani et al. and Further in View of Hartlaub et al.**

Applicant hereby incorporates by reference the above remarks with respect to Gozani et al. and Hartlaub et al. as to the limitations of the teachings of each independently and the combination thereof.

In light of the dependency of claim 12 on claim 10, now believed to be in allowable form, and the above remarks, reconsideration and withdrawal of the rejection as to claim 12 under 35 U.S.C. §103(a) over Gozani et al. in view of Hartlaub et al. is requested.

**Summary**

Claims 1-13 remain pending in this application. Each claim is believed to be in allowable form and directed to patentable subject matter. Reconsideration and withdrawal of the rejections is requested. In the event that the Examiner has any suggestions as to how to improve the form of any of the pending claims, it is respectfully requested that the undersigned attorney be contacted at the telephone number provided below to resolve any outstanding issues.

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Respectfully submitted,

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